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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHAN, SING P

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/808,366	<b>Applicant(s)</b> NASLI-BAKIR ET AL.	
	<b>Examiner</b> SING P. CHAN	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5,6,8,12-15,17,18,20,24-27 and 31-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,8,12-15,17,18,20,24-27 and 31-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, 6, 12, 15, 17, 18, 24, 27, 31-33, 35, 38, and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ljunar et al (WO 02/072324 A1) in view of Sadashige (U.S. 3,969,558).

Regarding claims 1, 5, 6, 12, 15, 17, 18, 24, 27, 31, and 38, Ljunar et al discloses a method of reducing the emission of formaldehyde laden layered products. The method includes providing an ammonium salt solution of about 1 to 60% (Page 2, lines 33-35) with urea added to a ratio of urea to ammonium salt from 1:10 to 1:1 (Page 3, lines 27-32), applying the composition to veneer or board (Page 2, lines 20-23) with any conventional coating technique such as roller coating, curtain coating, or spray coating (Page 3, lines 11-12). Furthermore, Ljunar define the board to include particle board, chip board, or fiber board (Page 3, lines 30-32), which the method would be a post treatment after forming the board. Ljunar et al is silent as to forming the veneer by bonding wooden materials or wooden lamellas, forming glue lines, planing the surface with the glue line and applying the treatment composition to the surface with the glue lines. However, forming veneer with wooden materials or wooden lamellas, which forms glue lines, and planing the surface of veneer is well known and conventional as

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shown for example by Sadashige. Sadashige discloses a method of forming veneer sheet from a plurality of thin flat sections of woods. The method includes dividing log into small flitches, smoothing all the surfaces of the flitches to allow for mating to closely joined with each other, jointing the flitches together with adhesive, which required pressing the flitches together, to form a laminated flitch, which is shade as a beam (See Figures 10 and 13) and cutting out a sheet of veneer from the laminated flitch (Col 3, line 60 to Col 4, line 11), which inherently plan both the upper and lower surfaces of the veneer and provide a plurality of glue lines all surfaces (See Figures 3, 4, 6, 7, 11, 13, 14, 24, 17-21, and 23). Furthermore, one of ordinary skill in the art reading Ljunar et al and Sadashige would appreciate, if the invention of Ljunar et al is applied to the veneer of Sadashige, the upper and lower would be coated with the emission reduction composition of Ljunar et al as after the veneer has been sliced or planed from the laminated flitch.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a veneer with exposed glue lines in all surfaces by dividing log into small flitches, smoothing all the surfaces of the flitches to allow for mating to closely joined with each other, jointing the flitches together with adhesive, which required pressing the flitches together, to form a laminated flitch and cutting out a sheet of veneer from the laminated flitch as disclosed by Sadashige in the method of Ljunar et al to provide a process of industrially mass producing sliced veneer sheets without troublesome mending or patching as was required in gluing conventional sliced veneers. (See Sadashige, Col 2, lines 22-29)

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Regarding claims 32 and 35, Ljunar et al discloses one of the treating composition includes urea (Page 3, lines 27-32), which inherently includes amino or amide group.

Regarding claims 33 and 36, Ljunar et al discloses an ammonium sulphite as the ammonium salt. (Page 3, lines 1-7)

Regarding claims 41-43, Ljunar et al discloses if only one surface is treated, the amount of the treating composition is from  $30 \text{ g/m}^2$  to  $90 \text{ g/m}^2$  and if both surfaces are treated, the amount per side is suitably half of the amount, i.e.  $15 \text{ g/m}^2$  to  $45 \text{ g/m}^2$ , if only one surface is treated. (Page 3, lines 11-17)

Regarding claims 44 and 45, Ljunar et al is silent as to applying the treating composition from 0.5 second to 60 second or 1 hour after planing, but does recite drying the veneer for 4 hours before gluing and pressing (See Ljungar et al, Page 5, lines 1-4). However, one of ordinary skill in the art at the time the invention was made reading Ljunar et al would appreciate the veneer sheet(s) can be treated with the treating composition to immediately after slicing the veneer from the laminated flitch, which may be from 0.5 second to 60 second or longer such as 1 hour, and would logically send the sheet or sheets to the coating devices such that it may be dried for 4 hours before bonding.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to logically coat the veneer sheets immediately after slicing or planing, which would be from 0.5 second to 60 second or longer such as 1 hour to allow

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the veneer sheets to dry and be made available for bonding to a substrate in the method of Ljunar et al to provide time for the veneer sheet to dry.

3. Claims 8, 13, 14, 20, 25, 26, 34, 37, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ljunar et al (WO 02/072324 A1) in view of Sadashige (U.S. 3,969,558) as applied to claims 1, 6, and 15 above, and further in view of Rohringer (GB 2,062,039).

Ljunar et al discloses the ratio of urea to ammonium salt is 1:10 to 1:1, which would be 0.1% to 50%, but is silent as to the composition include 0.02 to 10% of a polymer such as polyvinyl alcohol. However, providing alcohol such as polyvinyl alcohol in the wood treatment composition is well known and conventional as shown for example by Rohringer. Rohringer et al discloses a method for treating a timber with flameproof compound. The method includes providing a timber, providing a treating compound comprising component (a) of flameproof agent (Page 1, line 26) such as ammonium salts (Page 1, lines 67-74), component (b) of at least one fixing agent (Page 1, line 27), such as polyvinyl alcohols or reaction product of urea or cyanamides and formaldehyde (Page 1, lines 85-118), component (c) of at least one blowing agent (Page 1, line 28), such as urea (Page 2, lines 97-115). Furthermore, providing the components in the range such as 20 to 300 g/l of component (a), 0 to 60 g/l of component (b), and 0 to 150 g/l of component (c) is well known and conventional as shown for example by Rohringer et al, which is within the range as recited. (Page 3, lines 3-8)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to treat the wood material with the flameproof composition, which comprising one treating substances is urea or a urea derivative, unsaturated aldehyde or an alcohol, or a polyvinyl alcohol dispersion as disclosed by Rohringer et al in the method of Ljunar et al as modified by Sadashige to provide a flameproof treatment for wood or timber with a lower energy costs (See Rohringer et al, Page 1, lines 14-19), which also reduces formaldehyde emission.

4. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ljunar et al (WO 02/072324 A1) in view of Sadashige (U.S. 3,969,558) as applied to claim 38 above, and further in view of Lopez (U.S. 2003/0224122 A1).

Ljunar et al as modified by Sadashige above discloses planed veneer sheet's surfaces include upper and lower surfaces, which included the glue lines and would be oriented upward and downward (See Sadashige, Figures 3, 4, 6, 7, 11, 13, and 24), but is silent as to applying the coating composition to both surfaces simultaneously with spraying to applying the coating to the upper surface and roll coating to apply the coating composition to the lower surface. However, applying the coating composition to both surfaces simultaneously and using roll coating to apply the coating composition to the lower surface is well known and conventional as shown for example by Lopez. Lopez disclose providing a roll coaters (120 and 130) to simultaneously coating the upper and lower surface of the wood substrate (Paragraph 41-42 and Figure 3), and since Ljungar et al discloses the coating composition may be applied using any conventional coating technique such as roller coating, curtain coating, or spray coating,

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which are interchangeable and one of ordinary skill in the art would appreciate the upper roller coater of Lopez can be replaced with either a curtain coater or a sprayer coater.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the coating composition to both upper and lower surfaces simultaneously with spraying to applying the coating to the upper surface and roll coating to apply the coating composition to the lower surface as disclosed by Lopez in the method of Ljunar et al as modified by Sadashige to provide s significant cost saving (See Lopez, Paragraph 50) as well as the coating techniques are interchangeable.

5. Claims 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ljunar et al (WO 02/072324 A1) in view of Sadashige (U.S. 3,969,558) as applied to claims 1 and 15 above, and further in view of Kahrman et al (DE 4,114,518).

Ljunar et al discloses drying the ammonium carbonate solution coating on the veneer (See Ljunar et al, Page 5, lines 10-15) but is silent as to drying the coating with hot air, infra-red or microwave heating. However, drying coating on wood with hot air, infra-red or microwaves heating is well known and conventional as shown for example by Kahrman et al. Kahrman et al discloses a method of coating wood or timber products. The method includes applying a coating material onto the wood or timber products and drying each in turn by heating with IR, hot air oven, or microwaves. (See English Abstract of DE 4,114,518)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide drying means such as IR, hot air oven, or microwaves to



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dry a coating as disclosed by Kahrman et al in the method of Ljunar et al as modified by Sadashige to allow for a faster drying process and requiring less time.

***Response to Arguments***

6. Applicant's arguments filed November 20, 2008 have been fully considered but they are not persuasive.

7. In response to applicant's argument of Ljungar et al does not teach applying the treatment to any surface with a glue line, the examiner agrees in part that the veneer as recited by Ljungar et al does not have any exposed glue line but Ljungar does recited the treatment can also be applying to board form of particle board, chip board, and fiber board (See Ljungar, Page 3, lines 30-32), which are bonded together with binder or adhesive, and any treatment to these board would be a post treatment after forming the board itself. Furthermore, the same reasoning is applied when the combination of Ljungar and Sadashige is combined. The combination would teaches the veneer is form by the method of Sadashige, which provide a number of glue lines on all surfaces or sides and the treatment of Ljungar et al, which is a post treatment after formation of the veneer is the same as the formation of the particle board, chip board, or fiber board. Therefore, the teaching of Ljungar et al does suggest to one of ordinary skill to apply the treatment to a veneer formed by the method of Sadashige, even if it is a post treatment after formation of the veneer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SING P. CHAN whose telephone number is (571)272-

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1225. The examiner can normally be reached on Monday-Thursday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sing P Chan/  
Acting Examiner of Art Unit 1791